



AN IMPACT ANALYSIS OF TOURISM AND ECONOMIC GROWTH IN INDIA

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ABSTRACT

The tourism sector exerts a substantial and diverse influence on India's economic growth. Renowned for its rich cultural heritage, historical landmarks, and natural splendor, India has emerged as a favored destination for both domestic and international travelers, drawing millions annually. The study aims to highlight the following factors: per capita GDP, international tourist receipts, trade openness, and gross capital formation. The study employs the Heteroscedasticity Test, Normality Test, Breusch-Godfrey Serial Correlation LM Test, and CAGR (Compound Annual Growth Rate) to examine the contribution of tourism to economic growth in India, comparing major countries from 2003 to 2020. The paper aims to provide an impact analysis of the relationship between economic growth and tourism in India, examining the multifaceted dimensions of this symbiotic relationship.

KEYWORDS: Capital Formation, Economic Growth, GDP, Trade Openness, Tourism

1. INTRODUCTION

Currently, the tourism sector stands as the world's largest service sector in terms of revenue generation, promising substantial social and economic transformations (Anupama, & Sumita, 2012). Many countries have increasingly focused on tourism to pursue their economic interests. According to data from the UNWTO (United Nations World Tourism Organization), global visitor exports amounted to \$2.1 billion in 1950, surging to \$1,643.2 billion in 2018 (Mandeep & Nitasha, 2012). Forecasts for 2019 anticipate attracting 1,485 billion international tourist arrivals, marking a 4.0% increase. By 2029, global tourist arrivals are expected to reach 2.196 billion, with expenditures totaling \$2,483.9 billion, representing a 3.8% increase (World Travel & Tourism Council report, 2019).

The Travel & Tourism industry contributed \$8.8 trillion to the global economy in 2018, equivalent to 10.4% of global GDP, growing by 3.9%, surpassing the overall global economic growth rate of 3.2% (WTTC, 2018). It maintained its position as the second-fastest growing industry in 2018, closely following Manufacturing, which grew by 4.0%. The development of the tourism sector holds significant potential for less developed countries grappling with challenges such as high unemployment rates, foreign exchange constraints, and reliance on a single product economy (Dayananda & Leelavathi, 2016).

Tourism has emerged as a significant driver of economic growth in India, contributing substantially to its GDP, employment generation, and foreign exchange earnings. Over the past few decades, India has witnessed a remarkable surge in tourist arrivals, both domestic and international, owing to its diverse cultural heritage, natural beauty, historical landmarks, and vibrant traditions. India's tourism sector has evolved into a

key pillar of its economy, additionally; it plays a crucial role in enhancing people's standards of living, levels of consumption, and overall socio-economic development. India's diverse array of attractions, available throughout the year, presents vast opportunities for tourists. These attractions are developed not only to attract visitors but also to foster socio-economic benefits for local communities.

In This chapter aims to conduct an impact analysis of the relationship between economic growth and tourism in India, examining the multifaceted dimensions of this symbiotic relationship. This impact analysis will explore the positive and negative effects of tourism on India's economic growth, considering various indicators such as Per Capita GDP, International tourist receipts (it includes foreign exchange earnings and tourist's arrivals), Gross Capital Formation and Trade Openness (trade between import and export of goods and services). By evaluating the interplay between tourism development and economic expansion, this study seeks to provide insights into the opportunities and challenges that accompany the growth of the tourism industry in India.

Through this impact analysis, policymakers and industry stakeholders can gain valuable insights into optimizing the contributions of tourism to India's economic prosperity while mitigating potential risks and challenges. By fostering a conducive environment for sustainable tourism development, India can harness the transformative power of tourism to drive inclusive growth, promote cultural exchange, and enhance its global competitiveness in the tourism market.

2. REVIEW OF LITERATURE

Cleveria (2016) in a study titled 'Positioning emerging tourism

markets using tourism and economic Indicators ‘analyses the main trend in twenty emerging destinations, focusing on the interaction between tourism and economic information over the period comprised between 2000 and 2010. This period sampled overnight visitors, total expenditure, and inbound expenditure over GDP. Expenditure per tourist, rooms, occupancy, GDP and HDI. His notion that all the information categorized into two types

- To grow in the contribution of tourism and economic activity.
- To hotel accommodation both in terms of supply and demand.

Hazra (2018) in the study ‘Indian tourism: present and future scenarios’ noted the government of India emphasized and promotion of different category tourism in India. Especially India modified the visa policy during 2014 by allowing visitors from other countries to obtain an electronic visa online. Indian government mainly focused the collecting huge revenue from the tourism sector. However, the government established many tourist spots in India.

A study by Manish (2005) focused on the role of information technology in the tourism industry. The hotel industry and tourism industry are the major industries in recent years, which inter-linked. With help of information technology, tourists demand good services while the hotel industry provides needed services, which will contribute to economic development. This industry provides several job opportunities to the local peoples. It contains vital information on tourism planning and management, crucial issues are given an elaborate treatment.

Ramphul (2017) in his study titled ‘The relationship between tourism, financial development and economic growth in India’ addressed the relationship between the growth of India’s tourism industry and economic growth from 1960-2014. He also mentioned how the government should adopt policy programs to attract foreign tourists. The short-term and long-term impacts on India’s economy have been investigated by foreign tourists in the country. He has used Bayer and hanc (2013) and ARDL modeling approaches to co-integration, VECM innovative accounting, and variance.

A study ‘Tourism and wellbeing’ by Smith and Diekmann (2017) focused on theoretical and methodological perspective tourism in the last few decades. They also discuss the relationship between various types of well-being, tourism, and activates. Although researchers categorized several types of wellbeing tourism for example hedonic, eudemonic, existential, and utilitarian wellbeing, they suggest the need to consider wellbeing from eastern rather than western perspectives especially as Asian tourism markets want continues growth.

3. IMPACT OF TOURISM ON INDIAN ECONOMY

3.1 Positive Impacts of Tourism in India

1. **Economic Growth:** According to the Ministry of Tourism, India, the tourism sector contributed significantly to the country’s GDP. For example, in 2019, the direct contribution of tourism to GDP was approximately 3.5%,

and the total contribution, including indirect impacts, was around 9.2%.

2. **Employment Generation:** Tourism is a major source of employment in India. The WTTC reported that the tourism sector supported over 42 million jobs in the country in 2019, representing around 8.1% of total employment. These jobs span various segments of the economy, including hospitality, transportation, entertainment, and handicrafts, providing livelihoods to millions of people across different regions.
3. **Foreign Exchange Earnings:** India’s tourism industry has been a key earner of foreign exchange. According to the Reserve Bank of India (RBI), foreign exchange earnings from tourism amounted to approximately USD 28.6 billion in the fiscal year 2019-20. This significant inflow of foreign currency contributes to India’s balance of payments and strengthens the country’s external reserves.
4. **Infrastructure Development:** Investments in tourism infrastructure have played a crucial role in supporting the sector’s growth. The Government of India has initiated schemes such as Swadesh Darshan and PRASAD (Pilgrimage Rejuvenation and Spiritual Augmentation Drive) to develop tourist circuits and enhance visitor experiences. Investments in tourism infrastructure have been substantial. For instance, the Ministry of Tourism’s data shows that the Swadesh Darshan Scheme, which focuses on integrated development of tourist circuits, had a total approved cost of over INR 6,000 crores (approximately USD 800 million) for various projects.
5. **Cultural Exchange:** According to the Ministry of Tourism, Government of India, the tourism sector has witnessed steady growth in recent years. For instance, in 2019, India registered a total of 10.89 million foreign tourist arrivals (FTAs), marking an increase of 3.2% compared to the previous year. Domestic tourism has also seen significant expansion. The Ministry reported approximately 2.07 billion domestic tourist visits in 2019, reflecting a growth rate of 5.1% over the previous year. The number of foreign tourist arrivals (FTAs) in India has been consistently increasing. In 2019, India welcomed over 10 million international tourists, fostering cultural exchange and promoting understanding between different nations.

3.2 Negative Impacts of Tourism in India:

1. **Overcrowding and Environmental Impact:** Popular destinations like the Taj Mahal and Jaipur have faced issues of overcrowding. The Archaeological Survey of India (ASI) reported that the footfall at the Taj Mahal exceeded 10 million visitors in 2019, leading to concerns about environmental degradation and stress on infrastructure.
2. **Cultural Commoditization:** The increased commercialization of cultural sites can lead to the commoditization of traditions and practices. This is reflected in surveys where tourist’s express preferences for more ‘authentic’ experiences, potentially altering the genuine cultural landscape.
3. **Resource Strain:** Localized resource strain can occur, affecting water supply, waste management, and energy consumption. Data from specific tourist destinations in

India reveals instances where local resources are over utilized during peak tourist seasons.

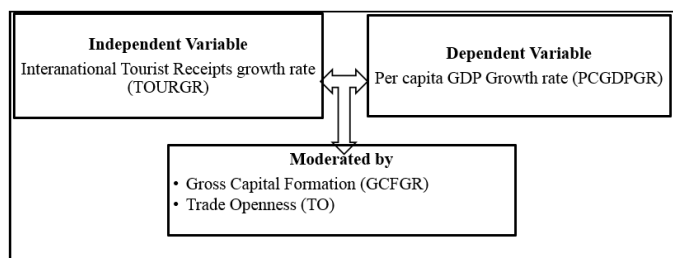
4. **Income Disparities:** While tourism contributes significantly to the economy, there can be income disparities between different regions. For instance, data from the World Bank indicates that certain states with popular tourist destinations may experience higher economic growth compared to others.
5. **Cultural and Social Impact:** Studies have shown that rapid tourism development can sometimes lead to social issues, including changes in local lifestyles, values, and community structures. Surveys and qualitative data may reveal the extent to which these changes impact local communities.

It's essential to note that obtaining comprehensive and up-to-date data on the positive and negative impacts of tourism can be challenging. Data availability may vary, and some impacts are context-specific, requiring detailed local studies and surveys.

4. CONCEPTUAL FRAMEWORK

This framework aims to explore the interplay between tourism and economic growth, while also considering the moderate impact of gross capital formation and trade openness across various global regions, as outlined in the study's objectives. **Figure 1** illustrates the conceptual framework designed to examine the empirical connection between tourism and economic growth, along with the moderate influences of gross capital formation and trade openness, both on a global scale and within each distinct in the country.

In assessing economic growth in India, this study utilizes annual GDP per capita data from 2003. GDP per capita measures a country's total volume of goods and services produced relative to its population size. To estimate tourism growth, the study examines tourist receipts spanning from 2003 to 2020. Tourist receipts, chosen over tourist arrivals, encompass both visitor arrivals and expenditure levels, providing a more comprehensive insight into critical aspects. Additionally, the moderate impact on GDP per capita will be evaluated through gross capital formation and trade openness. Gross capital formation signifies a country's annual net capital accumulation relative to its GDP. Trade openness, on the other hand, represents the sum of goods and services imports and exports as a percentage of GDP.



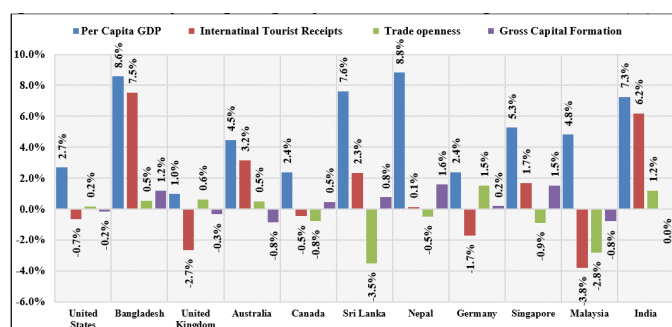
Source: Author illustration

Figure 1 Conceptual Framework:

5. IMPACT OF TOURISM AND ECONOMIC GROWTH IN INDIA

Figure 2 shows the compound annual growth rate (CAGR) of tourism towards economic growth in India compared to other major countries from 2003 to 2020; let's focus on the following factors: Per Capita GDP, International Tourist Receipts, Trade Openness, and Gross Capital Formation. In terms of Per Capita GDP Growth in India experienced a CAGR of 7.3% in Per Capita GDP, which is relatively high compared to many other countries in the list. This indicates strong economic growth over the period. However, some countries like Bangladesh, Nepal, and Sri Lanka also had high Per Capita GDP growth rates, suggesting significant economic development in those nations. Similarly, in India's CAGR of 6.2% in International Tourist Receipts indicates robust growth in tourism revenue over the years. Sri Lanka and Bangladesh also experienced notable growth in tourism receipts, which suggests a positive trend in their tourism sectors. Followed by, India's trade openness grew at a CAGR of 1.2%, indicating increased integration into the global economy. Germany had the highest CAGR in trade openness at 1.5%, reflecting its strong position in international trade. But, India's Gross Capital Formation remained relatively stable with a CAGR of 0.0%, which suggests steady investment in physical assets. Countries like Nepal and Singapore had higher growth rates in Gross Capital Formation, indicating increased investment activities.

Overall, India demonstrated strong growth in both Per Capita GDP and International Tourist Receipts, reflecting the importance of the tourism sector in contributing to economic growth. The country's trade openness also increased gradually, indicating efforts towards global integration. However, compared to some other countries, India's Gross Capital Formation growth was relatively low, which might indicate areas for further investment and development.



Source: <https://data.worldbank.org>, <https://www.unwto.org> and <https://www.worlddata.info>

Figure 2 Compound Annual Growth Rate of Tourism towards economic growth in India by comparing major countries during 2003 to 2020 (%)

The data presented in Table 1 outlines the trends and impact of tourism on the Indian economy. The study delves into the relationship between the growth rate of per capita GDP, international tourist receipts, trade openness, and gross capital formation from 2004 to 2020. Regarding the Growth Rate of Per Capita GDP and Growth Rate of International Tourist Receipts, it's evident that per capita GDP shows fluctuations

with both positive and negative growth rates. It reached a peak of 27.47% in 2007 and hit a low of -8.24% in 2020. Similarly, international tourist receipts also fluctuate, achieving a high of 38.31% in 2004 and a low of -57.64% in 2020. Despite these fluctuations, there isn't a consistent correlation between per capita GDP and international tourist receipts. While periods of higher GDP growth may coincide with increased tourism, the relationship isn't strictly linear.

Concerning Trade Openness and Gross Capital Formation, trade openness denotes a country's engagement in international trade, fluctuating between 37.50% to 55.79% over the years. Gross capital formation, indicating investment in the economy, fluctuates between 29.28% to 41.93% during the same period. There appears to be some correlation between trade openness and gross capital formation, with both indicators generally moving in tandem. A more open economy tends to attract more investment.

Overall, the study reveals that significant peaks in both the growth rate of per capita GDP and international tourist receipts were observed in 2007 and 2010, hinting at a potential positive correlation between economic growth and tourism. However, 2020 stands out as a challenging year, marked by negative growth rates in both per capita GDP and international tourist receipts. This downturn is largely attributed to the global COVID-19 pandemic, which severely disrupted international travel and economic activities worldwide.

Year	Growth rate of Per Capita GDP	Growth rate of International Tourist Receipts	Percentage of Trade openness	Percentage of Gross Capital Formation
2004	14.82	38.31	37.50	36.09
2005	13.87	21.44	42.00	38.08
2006	12.85	16.40	45.72	38.90
2007	27.47	26.01	45.69	41.93
2008	-2.90	10.93	53.37	37.85
2009	10.36	-10.61	46.27	40.11
2010	23.20	30.07	49.26	40.22
2011	7.41	22.22	55.62	39.59
2012	-0.98	3.56	55.79	38.35
2013	0.40	3.83	53.84	34.02
2014	8.57	9.00	48.92	34.27
2015	2.02	3.45	41.92	32.12
2016	7.91	7.63	40.08	30.17
2017	14.32	20.63	40.74	30.98
2018	0.82	4.54	43.60	32.07
2019	5.20	8.64	39.39	30.66
2020	-8.24	-57.64	37.87	29.28

Source: <https://data.worldbank.org>, <https://www.unwto.org> and <https://www.worlddata.info>.

Table 1 Outlines The Trends and Impact of Tourism On the Indian Economy During the Year 2004 To 2020.

The data provided table 2 seems to present correlation coefficients between various indicators; Per Capita GDP, International Tourism Receipts, Trade Openness, and Gross Capital Formation. Per Capita GDP (PCGDP): This variable has a correlation of 1 with itself, which is expected as it represents the correlation of a variable with itself (perfect correlation). Similarly, in International Tourism Receipts (ITR) It shows a strong positive correlation of 0.705 with Per Capita GDP. This indicates a strong association between international tourism receipts and per capita GDP. The p-value of 0.002 indicates that this correlation is statistically significant at the 0.05 level, followed by, Gross Capital Formation (GCF): It exhibits a moderate positive correlation of 0.542 with Per Capita GDP, and the p-value of 0.024 suggests statistical significance at the 0.05 level. But Trade Openness, there is a weak negative correlation (-0.121) with Per Capita GDP, but it is not statistically significant (p-value of 0.643 > 0.05).

Overall the study found that the International Tourism Receipts and Gross Capital Formation seem to have significant correlations with Per Capita GDP. Trade Openness does not appear to have a significant correlation with Per Capita GDP. These correlations can give insights into the relationships between these indicators, but they do not imply causation. Further analysis, potentially through regression or other methods, would be needed to explore causal relationships or predictive models involving these variables.

Variables	Per Capita GDP	International tourism Receipts	Trade openness	Gross Capital Formation
Per Capita GDP	1			
International tourism Receipts	.705**	1		
Trade openness	-0.121	0.16	1	
Gross Capital Formation	.542*	0.469	.562*	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 2 Correlation between Tourism and Economic Growth in India

The table 3 shows impact of the tourism on economic growth in India. The Durbin-Watson statistic (transformed) is 2.195715 indicate that there is an absence of autocorrelation in the error term. The Breusch Godfrey Serial correlation LM test probability value is 0.1148, which is statistically insignificant. Therefore, there is an absence of serial correlation (Table 4). The Breusch-Pagan-Godfrey heteroscedasticity test probability value is 0.2040, which is statistically insignificant. Therefore, there is an absence of heteroscedasticity (Table 5). Jarque Bera test probability value is 0.759770, which is statistically insignificant. Therefore, which shows, normality existed (Fig 2).

The R² and adjusted R² of this model are 0.754816 and 0.698235 respectively. The OLS empirical results find out that tourism has a significant positive impact on the economic growth at one

percent level of significance in India. Tourism receipts growth coefficient was 0.22, indicating that significantly economic growth increased by 22 percent for every 1 percent increase in tourism receipts growth in India. Here trade openness has a significant negative impact on the economic growth one percent level of significance. Gross capital formation (investment) has significant positive impact on economic growth one percent level of significance (Table 1).

Null Hypothesis: There is no association between the Tourism and Economic Growth in India

Dependent Variable: PCGDPGR				
Method: Least Squares				
Date: 02/14/24 Time: 22:46				
Sample (adjusted): 2004 2020				
Included observations: 17 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
TOURGR	0.223016	0.069409	3.213045	0.0068
GCFGR	1.381265	0.422073	3.272574	0.0061
TO	-0.824735	0.252894	-3.261184	0.0062
C	-5.420441	12.65751	-0.428239	0.6755
R-squared	0.754816	Mean dependent var		8.064592
Adjusted R-squared	0.698235	S.D. dependent var		9.275570
S.E. of regression	5.095364	Akaike info criterion		6.296863
Sum squared resid	337.5155	Schwarz criterion		6.492914
Log likelihood	-49.52334	Hannan-Quinn criter.		6.316351
F-statistic	13.34045	Durbin-Watson stat		2.195715
Prob(F-statistic)	0.000290			

Table 3 Impact of tourism on Economic Growth in India

F-statistic	1.878968	Prob. F(2,11)	0.1986
Obs*R-squared	4.328851	Prob. Chi-Square(2)	0.1148

Table 4 Breusch-Godfrey Serial Correlation LM Test results

F-statistic	1.604788	Prob. F(3,13)	0.2363
Obs*R-squared	4.594280	Prob. Chi-Square(3)	0.2040
Scaled explained SS	1.504543	Prob. Chi-Square(3)	0.6812

Table 5 Heteroscedasticity Test: Breusch-Pagan-Godfrey Results

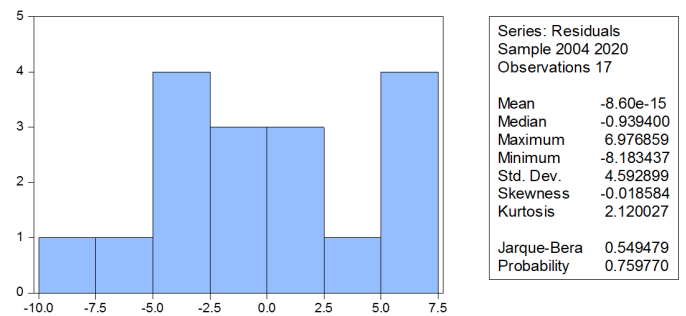


Fig 3 Normality Test Results

6. CONCLUSION

The Indian tourism sector stands as a cornerstone of the nation's economy, boasting significant contributions to employment, Gross Domestic Product (GDP), and Foreign Exchange earnings. Its impact extends across various allied sectors. Both the Central and State governments consistently allocate substantial investments towards its development annually. This flourishing tourism sector serves as a pivotal driver for growth, employment opportunities, heightened national and individual incomes, improved balance of payment positions, and increased foreign exchange earnings. It striving towards achieving more inclusive economic growth. The study reveals in India exhibited robust growth in both Per Capita GDP and International Tourist Receipts, underscoring the significance of the tourism sector in driving economic expansion. The nation's gradual increase in trade openness reflects endeavors towards global integration. Nonetheless, in comparison to certain other nations, India experienced relatively modest growth in Gross Capital Formation, suggesting potential areas for additional investment and development. a historical positive correlation between tourism and economic growth in India, with notable peaks in 2007 and 2010. However, the year 2020 witnessed negative growth due to the global COVID-19 pandemic. The statistical model indicates a significant positive impact of tourism on economic growth, with a 0.22 coefficient suggesting a 22 percent increase in economic growth for every 1 percent rise in tourism receipts. Notably, trade openness has a significant negative impact, while gross capital formation shows a positive impact on economic growth, both at a one percent level of significance. These findings highlight the dynamic nature of the relationship and the influence of external factors, guiding policymakers toward resilient and sustainable economic strategies.

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